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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,485	10/15/2004	Seiichi Uemoto	F-8423	4404
28107 7590 04/13/2007 JORDAN AND HAMBURG LLP 122 EAST 42ND STREET SUITE 4000 NEW YORK, NY 10168			EXAMINER CANTELMO, GREGG	
			ART UNIT 1745	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/13/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/511,485

Applicant(s)

UEMOTO ET AL.

Examiner

Gregg Cantelmo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date SEE OFFICE ACTION.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application
- ☐ Other: ____.

DETAILED ACTION

Response to Amendment

1. The preliminary amendment received October 15, 2004 has been entered.
Claims 1-5 are pending.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement filed October 15, 2004 has been placed in the application file and the information referred to therein has been considered as to the merits.

Drawings

4. Figure 8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The term "abnormal state" in claim 1 is a relative term which renders the claim indefinite. The term "abnormal state" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The specification fails to clearly define conditions which would reasonably describe what the claimed term "abnormal state" encompassed at the time the claimed invention was made. In the absence of such definition, the term is held to be vague and indefinite.

b. The term "battery" in claim 1 is indefinite since there are plural batteries recited in the claim and it is unclear whether the term "battery" is meant to be a specific battery of the plurality, all of the batteries in the plurality or any number of batteries in the plurality.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

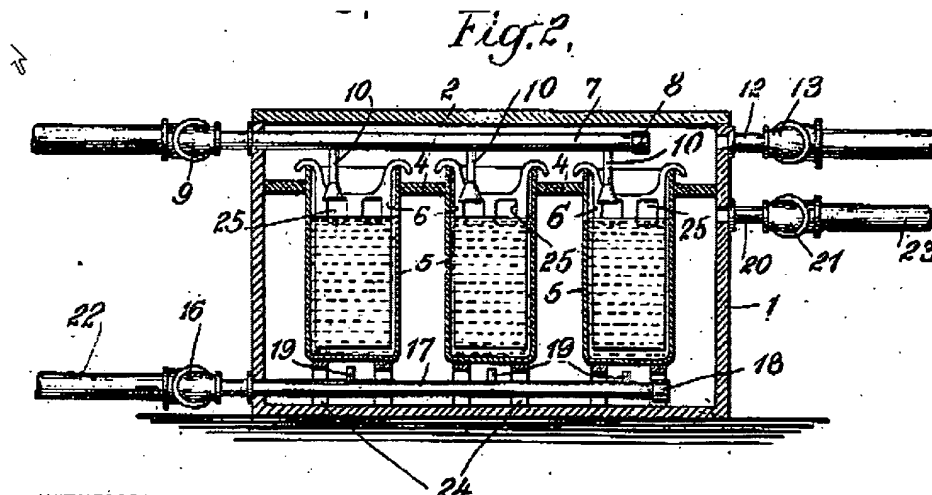
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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent No. 1,036,063 (Bedell).

Bedell discloses a battery pack, including a plurality of batteries 5 arranged in parallel and accommodated in a case 2 that forms a cooling-air passage, wherein the cooling-air passage (bottom section below separating plate 4) and a gas-discharge passage (upper section above separating plate 4) for discharging gas leaking from the batteries when the batteries fall into abnormal state are formed and separated from each other in the case by plate separator 4 (Fig. 2 as applied to claim 1).



As to the recitation of the batteries falling into an abnormal state: while intended use recitations and other types of functional language cannot be entirely disregarded. However, in apparatus, article, and composition claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art.

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If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. In re Casey, 370 F.2d 576, 152 USPQ 235 (CCPA 1967); In re Otto, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963).

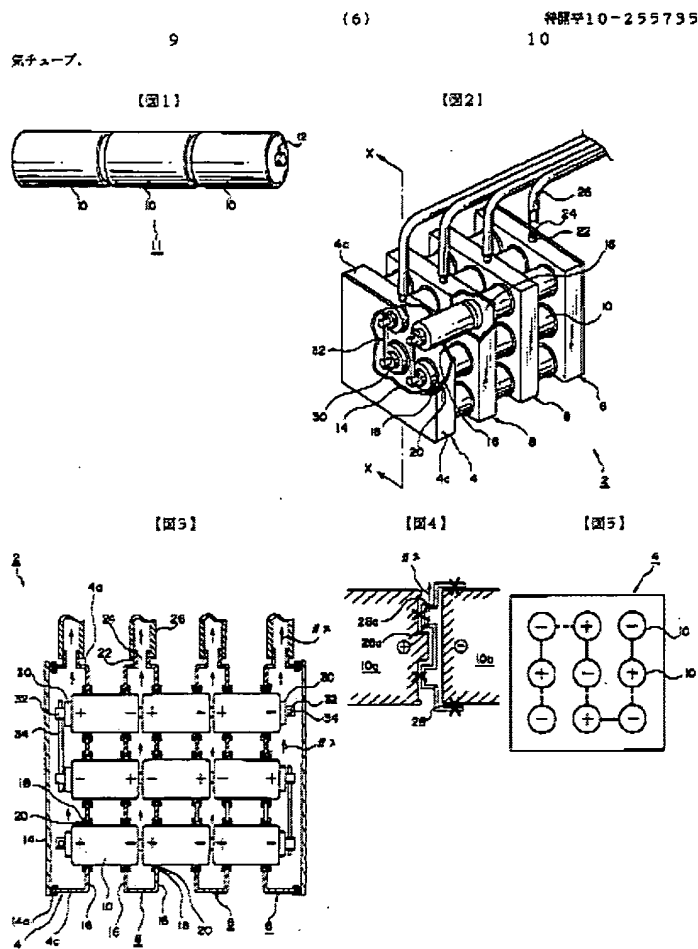
Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). See also MPEP § 2114.

The manner of operating the device does not differentiate an apparatus claim from the prior art. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

7. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 10-255735 (JP '735).

JP '735 discloses a battery pack including a plurality of batteries 10 arranged in parallel and accommodated in a case that forms a cooling-air passages between members 4, 8, 8 and 6 (paragraph 27), wherein the cooling-air passage (voids between adjacent discharge isolating chambers 4, 8, 8 and 6) and gas-discharge passages 4 for discharging gas leaking from the batteries when the batteries fall into abnormal state are formed and separated from each other (Figs. 2 and 3 as applied to claim 1).

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The batteries 10 are disposed in battery units that are arranged coaxially and connected in series are arranged in parallel in the case (Figs 1-5) and the gas-discharge passages 4, 8, 8 and 6 are formed in regions corresponding to both sides of the case along a direction in which the batteries are arranged in parallel and a region corresponding to the connection between the batteries (see Figs. 2, 3 and 5 as applied to claim 2).

The batteries 10 are disposed in plural walls and include batteries which extend through the sidewalls of the case (defined by the outermost portions 4

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and 6) and passage sidewalls (defined by inner portions 8 and 8) for separating the gas discharge passages from the coolant flow between elements 4, 8, 8, and 6 (Figs. 2 and 3 as applied to claim 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of

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35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-255735 (JP '735) in view of U.S. Patent No. 6,111,387 (Kouzu).

The teachings of JP '735 have been discussed above and are incorporated herein.

JP '735 employs connecting plates 34 for sequentially connecting the batteries 10 that are adjacent in series and these connecting plates are provided in a region adjacent to the outer surface of the sidewalls (see Figs. 2 and 3).

The difference between claim 4 and JP '735 is that JP '735 does not teach of the connecting plates 34 being provided on the outer surface of each of the sidewalls.

JP '735 teaches of the same fundamental arrangement as that in the instant application and while the instant application shows providing connecting plates 8 on the outer surface of the side wall 5a (See Fig. 2), the difference between the arrangement of claim 4 and that of JP '735 are held to be minor design choices and such a modification would have been readily apparent to one of ordinary skill in the art.

For example, configuring cells so that the connector plates are adjacent to the sidewalls of a housing is well known in the art as shown by Kouzu.

Providing the connecting plates on the outer surface of each of the sidewalls assists in securing the position of the cells relative to the housing.

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Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '735 by rearranging the apparatus such that the connecting plates are provided on the outer surface of each of the sidewalls since it would have improved the mechanical fastening and securing of the cells within the housing.

Allowable Subject Matter

9. Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: none of the prior art of record is considered to teach, suggest or render obvious the invention of claim 5.

The structure of the casing of claim 5 is significantly distinct from the structure of the case of JP 10-255735. The air passages of JP '735 are open and lack any open-face/closed face relationship as recited in claim 5. Furthermore each discharge passage is entirely closed and lacks any open face. Even though each of the air passages and discharge passages of the claim are eventually sealed by the cover plates, the claimed structure of the case is neither taught, nor suggested nor rendered obvious by either JP '735 or the remaining prior art of record, alone or in combination.

Conclusion

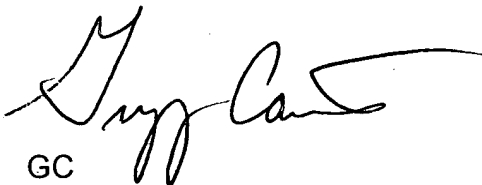
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is

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571-272-1283. The examiner can normally be reached on Monday to Thursday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



GC
April 12, 2007

Gregg Cantelmo
Primary Examiner
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